

The Set Up: This is an analysis of data from the Common Sense Census: Media Use by Kids Age Zero to Eight in America (2017). This is an examination of the **relationships between variables** using **bivariate OLS regression** – using either a quantitative IV or a categorical IV to predict a quantitative outcome (DV).

HYPOTHESIS TO TEST (H_A): As parent's daily media use increases, children's daily media use also will increase. (In other words, there is a positive relationship between x and y . NOTE: media use refers to activities such as watching TV/movies, listening to music, playing computer games, playing video games (handheld or console), playing educational computer games/phone apps, etc.)

$$H_A: \beta > 0$$

$$H_0: \beta \leq 0$$

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.247 ^a	.061	.060	144.774

a. Predictors: (Constant), Parent media use (CUMULATIVE MINUTES)

Coefficients ^a					
Model		Unstandardized Coefficients		Standardized Coefficients	Sig.
		B	Std. Error	Beta	
1	(Constant)	130.010	6.754		<.001
	Parent media use (CUMULATIVE MINUTES)	.168	.021	.247	<.001

a. Dependent Variable: Children's Total media use (CUMULATIVE MINUTES)

We found support for the claim that parent's daily media use has a positive effect on children's daily media use. It is unlikely we got a sample slope of .168 just by chance. In fact, there is a less than 1% chance of getting a sample slope of .168 simply due to chance variation. At the .05 level of significance, there is a statistically significant weak ($r=.247$) relationship between parental media use and media use by children ($p<.001$). We can explain 6.1% of the variation in children's media use by knowing parental media use. This may be because of children reflecting the behaviors of their parents, and learning that media use is a prominent form of stimulation and entertainment.

The results were statistically significant, though not substantially significant. 16.8% of media usage by children can be explained by the variable of media usage by their parents.

Part II: Bivariate OLS Regression for Predicting the Effect of a Categorical (“Dummy”) Independent Variable (X) on the Dependent Variable (Y), using variable: under30

HYPOTHESIS TO TEST (H_A): As a parent's age increases, their children will be less likely to use technology—most prominently the internet. (In other words, there is a negative relationship between x and y).NOTE: media use refers to activities such as watching TV/movies, listening to music, playing computer games, playing video games (handheld or console), playing educational computer games/phone apps, etc.)

$$H_A: \beta < 0$$

$$H_0: \beta \geq 0$$

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.055 ^a	.003	.002	152.956

a. Predictors: (Constant), Age (1=Under 30)

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	165.985	5.388		30.809	<.001
	Age (1=Under 30)	18.709	10.258	.055	1.824	.068

a. Dependent Variable: Children's Total media use (CUMULATIVE MINUTES)

We did not find support for the claim that parents' age has a negative effect on children's media use. It is unlikely we got a sample slope of .168 just by chance. At the .05 level of significance, there is no relationship between parental age and media use by children ($p > .05$). We fail to reject the null hypothesis.